

WHAT IS CLAIMED IS:

1. A semi-submersible platform, comprising:
 - a base having a first moon pool;
 - 5 a plurality of vertical outer buoyancy columns extending upwardly from the base;
 - a deck structure supported by the buoyancy columns and having a second moon pool;
 - a central columnar buoyancy apparatus having a lower portion guided within the first moon pool and an upper portion guided within the second moon pool; and
 - at least one vertical riser passing through the central columnar buoyancy apparatus, wherein
 - 10 the at least one riser has a lower portion that is horizontally restrained within the buoyancy apparatus below the center of gravity thereof.
2. The semi-submersible platform of Claim 1, wherein at least two vertical risers pass through the central columnar buoyancy apparatus and are horizontally restrained below the center of
- 15 gravity thereof.
3. The semi-submersible platform of Claim 1, wherein the base is buoyant.
4. The semi-submersible platform of Claim 1, wherein the at least one riser is attached to the
- 20 central columnar buoyancy apparatus within the lower portion thereof.
5. The semi-submersible platform of Claim 4, wherein the at least one riser is attached to the buoyancy apparatus within the upper portion thereof.
- 25 6. The semi-submersible platform of Claim 1, wherein the central columnar buoyancy apparatus comprises multiple compartments.
7. The semi-submersible platform of Claim 1, wherein the central columnar buoyancy apparatus is guided within each of the first and second moon pools by a plurality of guide assemblies.

8. The semi-submersible platform of Claim 7, wherein the guide assemblies are complaint.

9. The semi-submersible platform of Claim 7, wherein the guide assemblies maintain substantially constant contact with the central columnar buoyancy apparatus.

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10. The semi-submersible platform of Claim 7, wherein each of the guide assemblies includes a wear pad that engages the central columnar buoyancy apparatus.

11. The semi-submersible platform of Claim 7, wherein each of the guide assemblies includes a
10 roller that engages the central columnar buoyancy apparatus.

12. The semi-submersible platform of Claim 7, wherein the guide assemblies include a plurality of wear pads on the periphery of the central columnar buoyancy apparatus.

13. The semi-submersible platform of Claim 11, wherein the central buoyancy apparatus
15 includes a plurality of vertical rails on the periphery thereof, each of the rails being positioned for engagement by one of the rollers.

14. The semi-submersible platform of Claim 7, wherein each of the guide assemblies comprises
20 a guide module that is lockably installable within one of the moon pools.

15. The semi-submersible platform of Claim 1, wherein the buoyancy apparatus includes structure that defines an internal moon pool.

16. The semi-submersible platform of Claim 1, wherein the platform includes a well deck that is
25 supported by the buoyancy apparatus.

17. The semi-submersible platform of Claim 1, wherein the platform includes a deck structure, and wherein buoyancy apparatus includes an upper stop assembly that is engageable against the

deck structure when the buoyancy apparatus is in its upper position, and a lower stop assembly that is engageable against the base when the buoyancy apparatus is in its lower position.

18. A method of installing a floating, semi-submersible platform at an operational site on the sea surface over the seabed, comprising the steps of:

(a) providing an assembly comprising a buoyant base having a plurality vertical outer buoyancy columns upwardly therefrom, and a central columnar buoyancy apparatus located centrally within the base, the central columnar buoyancy apparatus being movable vertically relative to the base between an upper position and a lower position;

(b) towing the assembly at a shallow draft to a first site with the central columnar buoyancy apparatus in its upper position;

(c) ballasting down the central columnar buoyancy apparatus to its lower position;

(d) ballasting down the base to a first draft such that the outer buoyancy columns extend just above the sea surface;

(e) floating a deck structure over the base, the outer buoyancy columns, and the central columnar buoy;

(f) deballasting the outer columns to lift the deck structure;

(g) deballasting the central columnar buoyancy apparatus to raise it to its upper position in which it engages the deck structure to form a platform;

(h) towing the platform to a second site at an intermediate draft;

(i) ballasting down the platform to an operational draft; and

(j) anchoring the platform to the seabed.

19. The method of Claim 18, wherein the central columnar buoyancy apparatus includes an upper stop assembly and a lower stop assembly, and wherein the step of ballasting down the buoyancy apparatus is performed until the lower stop assembly abuts against the base, and wherein the step of deballasting the buoyancy apparatus is performed until the upper stop assembly abuts against the deck structure.